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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/893,584	06/29/2001	Sudhakar Ganti	78945-7 /jlo	5613

29382   7590   07/15/2005

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EXAMINER
CHANKONG, DOHM

ART UNIT	PAPER NUMBER
2152	

DATE MAILED: 07/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/893,584	GANTI ET AL.
	Examiner	Art Unit	
	Dohm Chankong	2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>28 June 2005</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 17-35* is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 17-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1>   This action is in response to Applicant's RCE and amendments. Claims 10-16 have

been cancelled. Claims 22-35 have been added. Claims 1-9 and 17-35 are presented for further

examination.

Response to Arguments

2>   Applicant's arguments with respect to claims 1-9 and 17-35 have been considered but

are moot in view of the new ground(s) of rejection.

3>   In regards to the 102(e) rejection of claims 1-8 and 17-21 by Santiago, Applicant has

argued that the Santiago reference does not anticipate the claims because Santiago employs

credit tokens [pages 11, 12 of the Applicant's remarks]. Claim 1 has been amended to specify

that a leaky bucket mechanism is utilized to enforce the service rate guarantee for each class

of traffic and therefore is not anticipated by the Santiago reference.

However, this amendment does not overcome the Santiago reference. Santiago clearly

discloses that metering of the bandwidth usage for his flows and subflows can be performed

using "various policing methodologies, including credit-token and variants of credit-token

(also known as, the leaky bucket)" [0071].

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming
the subject matter which the applicant regards as his invention.

Claims 5-7, 9, 17 and 29-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the written description requirement. The claim(s) contains subject matter

which was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention.

a.   Claims 5 and 9 were amended to include "based upon <u>cascaded leaky buckets</u>

<u>mechanism</u>". Examiner was unable to find any description of this mechanism in the

specification. The specification discloses a cascaded policer and that parameters may

be cascaded. It is therefore unclear what is meant by "cascaded leaky buckets

mechanism" in relation to the policing of the plurality of traffic classes.

b.   Claim 17 is rejected because the specification does not disclose any means,

including buffer storage, for storing the capacities of the traffic classes.

c.   Claim 29 is rejected because the specification does not disclose any

functionality described as "storing the service in a service buffer storage having a

finite capacity for said service" and "storing the traffic capacities in (i-1) cascaded

buffers". Examiner could not find any disclosure in regards to storing the service,

that there is a service buffer storage, or that the buffers are cascaded to store the

traffic capacities.

d.   Claim 31 is similarly rejected because it claims the use of storing each of the

traffic capacities in a corresponding buffer storage. Examiner could not find any

support in the disclosure for a buffer storage for the respective traffic capacities. o

If Applicant disagrees with any of the 112 rejections, Examiner respectfully requests

cited sections in the specification that support the new amendments.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form

the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4>   Claims 1-4, 17-19 and 22 are rejected under 35 U.S.C § 102(e) as being anticipated by

Santiago et al, U.S Patent No. 2002|0186661 A1 ["Santiago"].

5>   As to claim 1, Santiago discloses a method of cascaded policing of a service for a two-

tier rate guarantee [0055, 0076, 0077 where : Santiago polices both the rate guarantee for the

overall flow as well as each individual guarantee for the subflow that makes up the flow]

comprising the steps of:

policing the service at a service rate guarantee based upon a leaky bucket mechanism,

wherein the leaky bucket has a finite traffic capacity for said service, the finite traffic

capacity comprising a first class traffic capacity having a first class rate guarantee and a

second class traffic capacity having a second class rate guarantee, which is lower than the

first class guarantee [0010, 0078, 0082, 0083 where: Santiago's flow is analogous to a service

and his subflows are analogous to first and second classes; each subflow having their own rate guarantee (predetermined rate limit)];

policing the first class traffic capacity at the first class rate guarantee based upon a leaky bucket mechanism, said leaky bucket having a traffic capacity, which is equal to the first class traffic capacity [0071, 0078, 0080];

policing the second class traffic capacity at the second class rate guarantee based upon a leaky bucket mechanism, said leaky bucket having a traffic capacity which is equal to the second class traffic capacity [0071, 0077, 0082, 0083 : ""each of the flows may be individually metered and collectively is bounded by the contracted bandwidth or QOS]; and

if not all of the capacity of the leaky bucket of the first class traffic is being used,

storing the second class traffic capacity, which is not being policed in step (c) into said leaky bucket [0071, 0083], and

policing the traffic capacity in said leaky bucket at an aggregate rate of the first class rate guarantee and the second class rate guarantee [0077, 0078, 0082, 0083 where : the subflows of a flow are bound by the total rate limit of the flow (aggregate rate of its subflows)].

6>   As to claim 2, Santiago discloses a method wherein a first class traffic capacity being marked as conforming if allowed by the first class rate guarantee and non-conforming if found to exceed the first class rate guarantee [0009, 0013, 0016].

7>   As to claim 3, Santiago discloses a method wherein the second class traffic capacity

being marked as conforming, if allowed by the aggregate rate of the first class rate guarantee

and the second class rate guarantee and non-conforming if found to exceed the aggregate rate

of the first class rate guarantee and the second class rate guarantee [0013, 0077, 0078, 0082,

0083 where: for example, one flow is analogous to a service, and its subflows are analogous to

a first and second traffic class. The flow and its subflows are bounded by bandwidth set forth

by the contract or QoS].

8>   As to claim 4, Santiago discloses a method wherein the steps (b) and (c) comprise

policing at the traffic class rate guarantee and a traffic class burst tolerance guarantee [Table 1

| 0086, 0090, 0091, 0092].

9>   As to claims 17-19, as they are merely claims to apparatuses that execute the steps of

the method of claims 1-3 respectively, they do not teach or further define over the claimed

limitations. Therefore claims 17-19 are similarly rejected for the same reasons set forth claims

1-3, supra.

10>   As to claim 22, Santiago discloses the method as described in claim 1, wherein the step

(a) comprises policing at a service rate guarantee and a service burst tolerance guarantee

[0077 ("bounded by the contracted bandwidth or QoS") and 0085 ("PBS – peak burst size")].

11>   Claims 1 and 17 are rejected under 35 U.S.C § 102(e) as being unpatentable over Fan et

al, U.S Patent No. 6.324.165 ["Fan"].

12>   As to claim 1, Fan discloses a method of cascaded policing of a service for a two-tier

rate guarantee[Figure 4 | column 10 «lines 41-50»] comprising the steps of:

        policing the service at a service rate guarantee based upon a leaky bucket mechanism,

wherein the leaky bucket has a finite traffic capacity for said service, the finite traffic

capacity comprising a first class traffic capacity having a first class rate guarantee and a

second class traffic capacity having a second class rate guarantee, which is lower than the

first class guarantee [column 3 «lines 14-40» | column 10 «lines 25-63»];

        policing the first class traffic capacity at the first class rate guarantee based upon a

leaky bucket mechanism, said leaky bucket having a traffic capacity, which is equal to the

first class traffic capacity [column 10 «lines 41-63»];

        policing the second class traffic capacity at the second class rate guarantee based upon

a leaky bucket mechanism, said leaky bucket having a traffic capacity which is equal to the

second class traffic capacity [column 10 «lines 59-63»]; and

        if not all of the capacity of the leaky bucket of the first class traffic is being used,

                storing the second class traffic capacity, which is not being policed in step (c)

        into said leaky bucket [column 11 «lines 25-59»], and

                policing the traffic capacity in said leaky bucket at an aggregate rate of the first

        class rate guarantee and the second class rate guarantee [column 10 «line 50» | column

        11 «lines 25-59» | column 13 «line 53» to column 14 «line 23»].

13>   As to claim 17, as it is merely claims to apparatuses that executes the steps of the

method of claim 1, it does not teach or further define over the claimed limitations. Therefore

claim 17 is similarly rejected for the same reasons set forth claim 1, supra.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art
> are such that the subject matter as a whole would have been obvious at the time the invention was made to a
> person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be
> negatived by the manner in which the invention was made.

14>   Claims 5-8, 20-21 and 23-35 are rejected under 35 U.S.C § 103(a) as being unpatentable

over Santiago in view of Elwalid et al, U.S Patent No. 5.978.356 ["Elwalid"].

15>   As to claim 5, Santiago discloses a method of cascaded policing of a service for a two-

tier rate guarantee comprising the steps of:

policing the service at a service rate guarantee based upon a leaky bucket mechanism,

wherein the leaky bucket has a finite traffic capacity for said service, the finite traffic

capacity comprises a plurality of classes of traffic capacities having their respective plurality

of traffic classes rate guarantees arranged in a descending order of priorities [0012, 0015, 0016,

0039, 0067, 0071, 0077, 0079 where : Santiago discloses a "hierarchical and layered"

prioritization and that higher priority flows/subflows are handled before the lower priority

flows/subflows];

policing at least one of the plurality of classes of traffic capacities at its respective

traffic class rate guarantee based upon a leaky bucket mechanism, said leaky bucket has a

traffic capacity which is equal to the at least one of the plurality of classes of traffic capacities

[0015, 0071, 0078];

policing each of the remaining plurality of classes of traffic capacities at its respective

traffic class rate guarantee based upon leaky buckets mechanism, each of the leaky buckets

has a traffic capacity which is equal to each of the remaining plurality of classes of traffic

capacities [0012, 0013, 0071, 0083]; and

if not all of the capacity of the leaky bucket of said at least one of the plurality of

classes of traffic capacities is being used,

storing one or more of the remaining classes of traffic capacities of said

plurality of classes of traffic capacities, which have lower traffic classes rate

guarantees and have not being policed in step (g), into said leaky bucket [0012, 0013,

0034, 0071, 0083], and

policing the classes of traffic capacities in said leaky bucket at an aggregate rate

of the plurality of traffic classes rate guarantee [0077, 0078, 0082, 0083 where : the

subflows of a flow are bound by the total rate limit of the flow (aggregate rate of its

subflows)].

Santiago does not explicitly disclose cascading leaky buckets.

16>   Elwalid discloses utilizing cascaded leaky buckets mechanism in regards to policing

rate guarantees [column 4 «lines 55-65»] for the purpose of enabling policing traffic to fit a

certain profile. Therefore it would have been obvious to one of ordinary skill in the art to modify Santiago's buckets as Elwalid's cascaded leaky buckets. One would have been particularly motivated to provide such a modification to better police the traffic to fit the requirements set forth by the traffic profile.

17>   As to claim 6, as it does not teach or further define over the limitations of claim 2, it is similarly rejected for the same reasons set forth for claim 2, supra.

18>   As to claim 7, Santiago discloses a method wherein each of the remaining portions of the plurality of traffic capacities is marked as conforming if allowed by the aggregate rate of the plurality of traffic classes rate guarantees and non-conforming if found to exceed the aggregate rate of the plurality of traffic classes rate guarantees [0082, 0083 where : Santiago's subflows are analogous to traffic capacities].

19>   As to claim 8, as it is does not teach or further define over the limitations of claim 5, it merely formulates the limitations of claim 5 into equation format], it is similarly rejected for the same reasons as set forth for claim 5, supra.

20>   As to claims 20 and 21, as they do not teach or further define over the limitations of the methods of claims 6 and 7, respectively [they merely formulate the stated limitations into an equation format], claims 20 and 21 are similarly rejected for the same reasons set forth for claims 6 and 7, respectively.

21>   As to claim 23, Santiago discloses the method of claim 5, wherein the steps (f) and (g)

comprise policing at a traffic class rate guarantee and a traffic class burst tolerance guarantee

[0077, 0085 ("SCBS - committed burst size for the subflow")].

22>   As to claim 24, Santiago discloses the method as described in claim 5, wherein the step

(e) comprises policing at a service rate guarantee and a service burst tolerance guarantee

[0077 ("bounded by the contracted bandwidth or QoS") and 0085 ("PBS - peak burst size")

where : Santiago's overall flow is analogous to the service and its subflows correspond to

traffic classes within the service].

23>   As to claim 25, Santiago discloses the apparatus of claim 17, wherein the policer is a

leaky bucket mechanism [0071].

24>   As to claim 26, Santiago discloses the apparatus of claim 17, wherein the policer

comprises a buffer storage for storing the first class traffic capacity and another buffer

storage for storing the second class traffic capacity [0051, 0055].

25>   As to claim 27, Santiago discloses the apparatus of claim 17, wherein the steps (s) and

(t) comprise means for policing at a traffic class rate guarantee and a traffic class burst

tolerance guarantee [0077, 0085 ("SCBS - committed burst size for the subflow")].

26>   As to claim 28, Santiago discloses the apparatus as described in claim 17, wherein the

step (r) comprises means for policing at a service rate guarantee and a service burst tolerance

guarantee [0077 ("bounded by the contracted bandwidth or QoS") and 0085 ("PBS – peak

burst size") where : Santiago's overall flow is analogous to the service and its subflows

correspond to traffic classes within the service].

27>   As to claim 29, Santiago discloses a method of cascaded policing of a service for a two-

tier rate guarantee comprising the steps of:

        policing the service at a service rate guarantee comprising storing the service in a

service buffer storage having a finite traffic capacity for said service, the finite traffic

capacity comprising a plurality of N classes of traffic capacities, C_i, i=1, 2...n and n>2, having

their respective plurality of traffic classes rate guarantees arranged in a descending order of

priorities [0012, 0015, 0016, 0067, 0071, 0077, 0079];

        policing the C_i traffic capacity at its respective traffic class rate guarantee R_i, the

policing comprising storing said traffic capacity in a C_i buffer storage having a traffic

capacity which is equal to the C_i traffic capacity [0015, 0071, 0078];

        policing each of the C_1, C_2,..., C_{i-1} traffic capacities at its respective traffic class rate

guarantee, R_1, R_2, ... , R_{i-1}, comprising storing the C_1, C_2,..., C_{i-1} traffic capacities in (i-1)

cascaded buffers storage having the C_1, C_2,..., C_{i-1} traffic capacities, respectively [0012, 0013,

0071, 0083]; and

        if not all of the capacity of the Ci buffer storage for the Ci traffic capacity is being

used,

storing one or more of the C1, C2,..., Ci-1 traffic capacities in said buffer

storage and policing the traffic capacities in said buffer storage, which have not being

policed in step (iii) at an aggregate rate RA$_i$, which is $RA_i = \sum_{i=1}^{N} R_i$ [0077, 0078, 0082,

0083 where : the subflows of a flow are bound by the total rate limit of the flow

(aggregate rate of its subflows)].

28>   As to claim 31, Santiago discloses the method of claim 29, wherein the policing

comprises storing each of the C$_i$, i=2...n, n>2 traffic capacities in a corresponding C$_i$, and

i=1,2...n, buffer storage [0055, 0057 : "the policer ... stores a drop policy for each connection"].

29>   As to claims 30 and 32-35, as they do not teach of further define over the previously

claimed limitations of claims 25, 20-23 respectively, they are similarly rejected for the reasons

set forth for claims 25 and 20-23, above.

30>   Claim 9 is rejected under 35 U.S.C § 103(a) as being unpatentable over Santiago and

Elwalid, in view of Fichou et al, U.S Patent No. 6.072.773 ["Fichou"].

31>   Santiago discloses a method of:

policing the service at a service burst tolerance guarantee based upon a leaky bucket

mechanism, wherein the leaky bucket has a finite traffic capacity for said service, the finite

traffic capacity comprises a plurality of N traffic capacities, C$_i$, i=1, 2,..,N and N>2, having

their respective plurality of burst tolerance guarantees, BT_i, i=1, 2,...,N and N>2 [Table 1 | 0071, 0085, 0086, 0087 where : each flow has associated variables including the committed burst size and peak burst size];

policing C_i traffic capacity at its respective burst tolerance guarantee BT_i, based upon a leaky bucket mechanism, said leaky bucket has a traffic capacity, which is equal to the C_i traffic capacity [Figure 13 | 0071, 0086];

policing each of the C_1, C_2, ..., C_{i-1}, traffic capacities at its respective burst tolerance guarantee BT_1, BT_2,..., BT_{i-1} based upon cascaded buckets mechanism, the leaky buckets having C_1, C_2, ..., C_{i-1}, traffic capacities [0012, 0013, 0071, 0083, 0085]; and

if not all of the C_i traffic capacity is being used,

storing one or more of the C_1, C_2, ..., C_{i-1}, traffic capacities, which is not being policed in step (p), into said leaky bucket [0071, 0078, 0083] : "credit bucket"].

Santiago does disclose utilizing burst tolerance guarantees and policing the traffic capacities of said leaky bucket but does not explicitly disclose policing the traffic capacities of said leaky bucket at an aggregate burst tolerance guarantee BA_i, which is $BA_i = \sum_{i=1}^{N} BT_i$.

Santiago also does not explicitly disclose cascading leaky buckets.

32>   Elwalid discloses utilizing cascaded leaky buckets mechanism in regards to policing rate guarantees [column 4 «lines 55-65»] for the purpose of enabling policing traffic to fit a certain profile. Therefore it would have been obvious to one of ordinary skill in the art to modify Santiago's buckets as Elwalid's cascaded leaky buckets. One would have been

particularly motivated to provide such a modification to better police the traffic to fit the

requirements set forth by the traffic profile.

33>   Fichou discloses policing traffic capacities at an aggregate burst tolerance which is the

sum of the burst tolerances of the respective traffic capacities [column 7 «lines 46-55» |

column 25 «line 4» where: Fichou does not explicitly disclose the equation of claim 9.

However his stated functionality of the burst tolerances is that the burst tolerance for both

low and high priority traffic is taken into an aggregate burst tolerance : $BT(o+1)$ where $BT(o)$

and $BT(1)$ represent the respective burst tolerances for low and high priority traffic]. It

would have been obvious to one of ordinary skill in the art to incorporate Fichou's aggregate

burst tolerance into Santiago's cascading policing method to enable Santiago's method to take

into account the burst tolerances of each of the subflows. Such an implementation would

facilitate a more accurate enforcement of Santiago's shared bandwidth amongst the subflows.

34>   Claim 5 is rejected under 35 U.S.C § 103(a) as being unpatentable over Fan in view of

Elwalid.

35>   As to claim 5, Fan discloses a method of cascaded policing of a service for a two-tier

rate guarantee comprising the steps of:

        policing the service at a service rate guarantee based upon a leaky bucket mechanism,

wherein the leaky bucket has a finite traffic capacity for said service, the finite traffic

capacity comprises a plurality of classes of traffic capacities having their respective plurality

of traffic classes rate guarantees arranged in a descending order of priorities [column 3 «lines 14-40» | column 6 «lines 9-12» | column 10 «lines 25-63»];

policing at least one of the plurality of classes of traffic capacities at its respective traffic class rate guarantee based upon a leaky bucket mechanism, said leaky bucket has a traffic capacity which is equal to the at least one of the plurality of classes of traffic capacities [column 10 «lines 41-63»];

policing each of the remaining plurality of classes of traffic capacities at its respective traffic class rate guarantee based upon leaky buckets mechanism, each of the leaky buckets has a traffic capacity which is equal to each of the remaining plurality of classes of traffic capacities [column 10 «lines 41-63»3]; and

if not all of the capacity of the leaky bucket of said at least one of the plurality of classes of traffic capacities is being used,

storing one or more of the remaining classes of traffic capacities of said plurality of classes of traffic capacities, which have lower traffic classes rate guarantees and have not being policed in step (g), into said leaky bucket [column 11 «lines 25-59»], and

policing the classes of traffic capacities in said leaky bucket at an aggregate rate of the plurality of traffic classes rate guarantee [column 10 «lines 45-50» | column 11 «lines 25-59»].

Fan does not explicitly disclose cascading leaky buckets.

36>   Elwalid discloses utilizing cascaded leaky buckets mechanism in regards to policing

rate guarantees [column 4 «lines 55-65»] for the purpose of enabling policing traffic to fit a

certain profile. Therefore it would have been obvious to one of ordinary skill in the art to

modify Fan's buckets as Elwalid's cascaded leaky buckets. One would have been particularly

motivated to provide such a modification to better police the traffic to fit the requirements

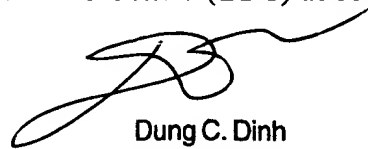set forth by the traffic profile.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Dohm Chankong whose telephone number is (571)272-3942.

The examiner can normally be reached on 8:30AM - 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Glenton Burgess can be reached on (571)272-3949. The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent

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access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

                                                        Dung C. Dinh
DC   Primary Examiner